JVLEDGER

Accounting with foreign-currency transactions and bank payments
JVLedger Functional Overview

IFRS · USD ledger · foreign-currency transactions · month-end revaluation · payment files

Beta version 1.0

For: management, finance managers and evaluators of the system

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All screens and figures in this document are sample demo data.

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1. What is JVLedger?

JVLedger is an **IFRS accounting web application** for small companies that participate in joint ventures such as LNG development projects. It keeps one ledger in USD (the booking currency, or local currency). Transactions in JPY, AUD or other currencies are recorded in **both the document currency amount and the USD amount**.

JVLedger is derived from the multi-currency accounting system "FX Ledger". It keeps the ledger structure, reports and approval workflow of FX Ledger. On top of this, it handles paying invoices, creating bank payment files and month-end FX revaluation in one flow.

Enter amounts in the invoice currency

Enter the invoice currency and amount as they are. The exchange rate is filled in from the FX rate master and the USD amount is calculated.

Payment file at approval

At final approval of a payment, the approver selects a file format and the system creates a file ready for upload to web banking.

Month-end revaluation in one click

FX bank balances and payables are revalued at the closing rate, and the entry is reversed automatically on the 1st of the next month.

Controls against payment fraud

New or changed payee bank details need approval by another administrator. Double payments are blocked and payment files carry a hash value.

2. Target company and accounting assumptions

Item	Assumption
Accounting standard	IFRS
Booking / functional currency	USD. Foreign-currency transactions are recorded at the transaction-date rate. Foreign-currency monetary items are revalued at the closing rate (IAS 21).
Bank accounts	Mainly USD, plus a JPY account. Default setup: "USD-01" (1010 Cash at bank – USD) and "JPY-01" (1015 Cash at bank – JPY).
Banks	Japanese banks (Mizuho Bank and MUFG Bank). Domestic transfers use the Zengin format; international / foreign-currency transfers use ISO 20022 (pain.001) or CSV.
Paying account	JPY invoices are paid from the JPY account and USD invoices from the USD account. A payment cannot mix currencies.
Company size	Up to 20 workflow users

Joint venture accounting	Joint operation under IFRS 11: the company's share is recorded directly in its own books. Operator billing statements can be imported.

3. Differences from FX Ledger

Item	FX Ledger	JVLedger
Ledger structure	Head office (USD) and branch books per currency	One USD ledger. No head office / branch accounting.
Foreign-currency transactions	Recorded in the branch currency and remeasured to USD for combination	Each journal has a document currency and rate; both the FX amount and the USD amount are recorded
Period-end translation	Calculated in reports (no journal)	A revaluation journal is approved and posted, then reversed automatically on the 1st of the next month
Payables	Balances only	Open items per invoice (due date, clearing)
Payments	Not available	Payment journals, automatic realised FX, payment file output
Payee bank accounts	Not available	Stored with the vendor; approval by an administrator
Added reports	Combination and remeasurement worksheets	Open payables (payment schedule), FX revaluation preview, payment register

4. Functions

Area	Function	Summary
Entry	Journal entry	Document currency, exchange rate, posting date, document date, due date and vendor invoice number. Lines are entered in the document currency; USD is calculated.
	Payment	Select the vendor, paying account, payee bank account and invoices; the payment journal is created automatically.
	FX revaluation	Preview FX bank balances and payables, then create and submit the revaluation journal.
	JV billing import	Creates a draft journal for the company's share from an operator billing statement (Excel / CSV).
	Attachments	Attach invoices and other evidence to a journal.
Workflow	Routing and approval	Initiator → reviewers (0–5) → approver. Return, reject, recall and reversal.
	Payment file output	At final approval of a payment, the approver selects the format.
	Payment files list	List of payment files, re-download and download count
Reports	Ledgers	Journal, general ledger (with FX amounts and FX balances), trial balance, indirect tax summary, open payables, FX revaluation preview, payment register
	Financial statements	Statement of financial position, profit or loss and OCI, changes in equity, cash flows (indirect). All with Excel and PDF output.
Masters / admin	Masters	Partners and payee bank accounts, company bank accounts, chart of accounts, tax codes, FX rates, JV cost mapping
	Administration	Users and roles, payee bank approvals, settings, period lock, audit log, Japanese / English UI

5. Foreign-currency journal entry

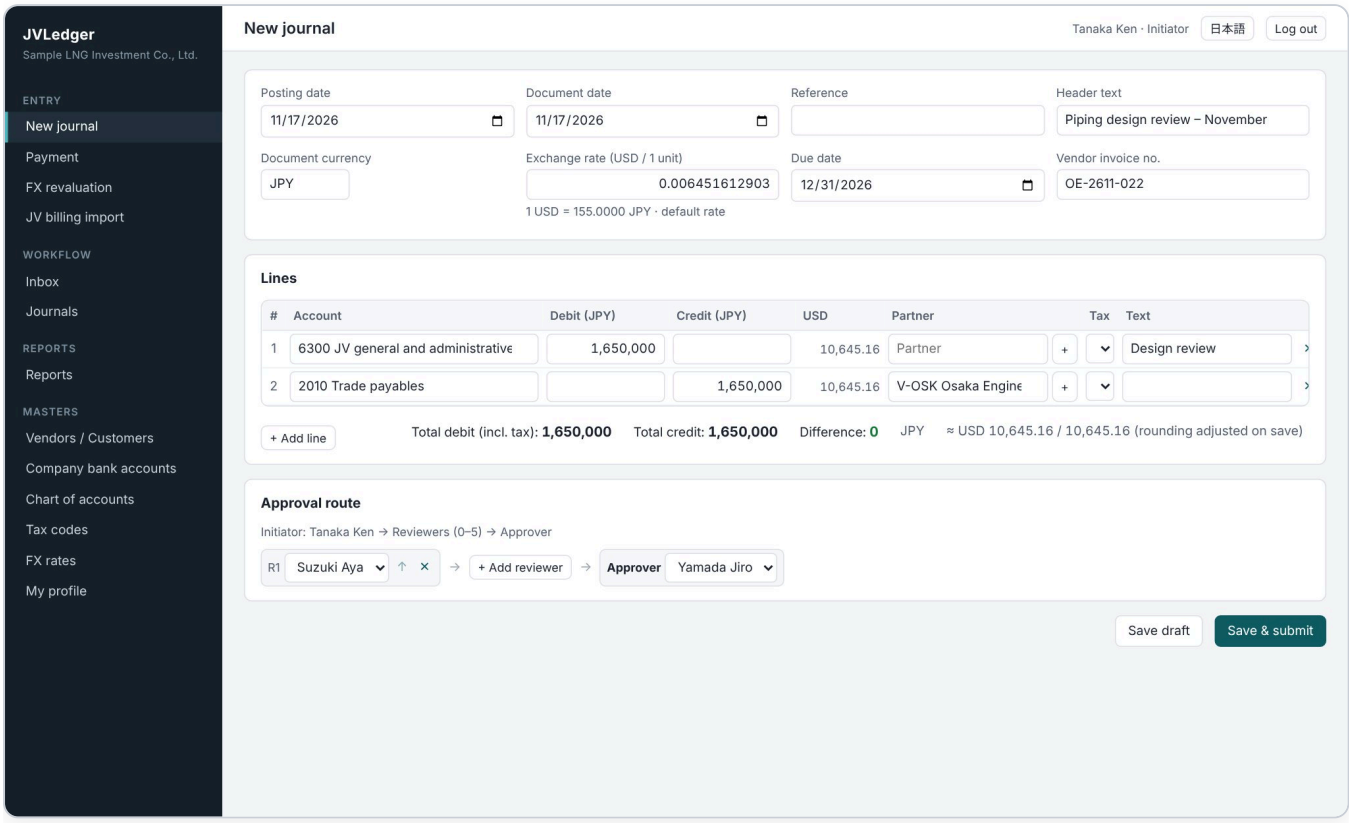


Figure 5-1 Journal entry (JPY invoice: lines in JPY, USD shown in the next column)

Document currency and exchange rate

Each journal has one document currency. The rate is held as "USD per 1 unit of currency" and is filled in from the posting date in this order. You can overwrite it.

1. The latest daily rate (D) in the same month, on or before the posting date
2. The monthly average rate (M) of that month
3. The latest closing rate (C) or daily rate

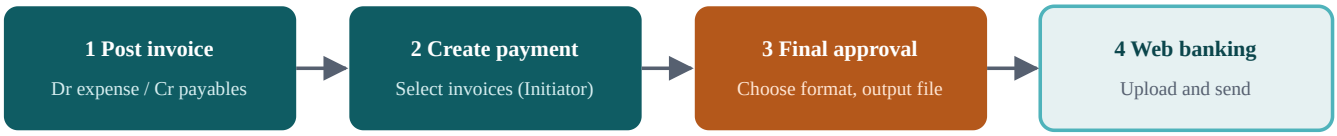
The USD amount of each line is the FX amount × rate, rounded to 2 decimals. If rounding makes USD debits and credits differ, the largest line is adjusted automatically.

Payables (open items)

Account 2010 Trade payables is managed by open item. A credit line on this account needs a vendor and a due date. The vendor invoice number appears in the payment screen, the open payables report and the remittance information of the payment file.

> The USD account (1010) can be used only in USD journals and the JPY account (1015) only in JPY journals, so that the bank account currency always matches the FX amount recorded.

6. Payables and payments



On posting, the invoices are cleared and the payment file is stored with the payment

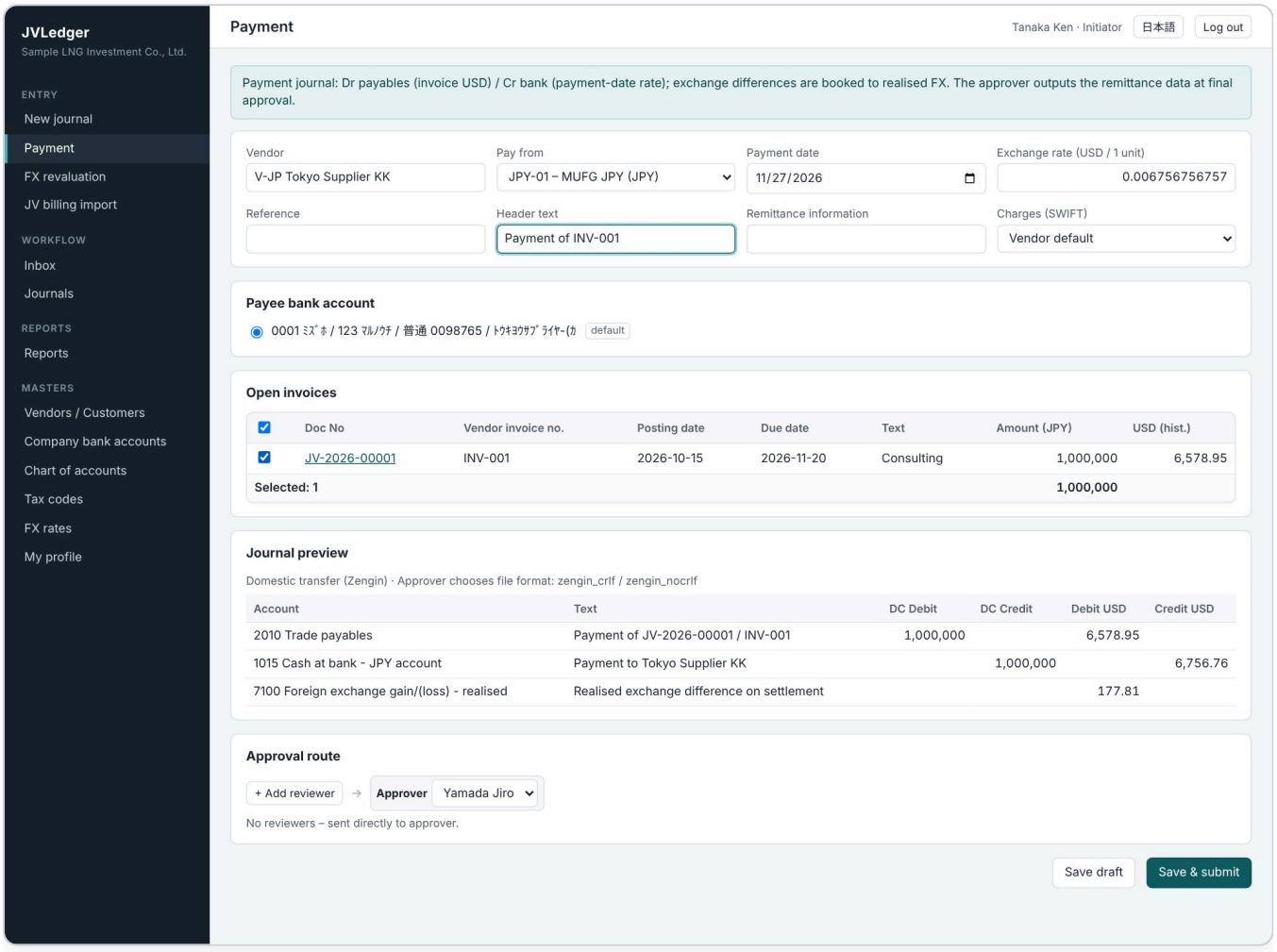


Figure 6-1 Payment entry: select open invoices and preview the journal

Payment journal

Line	Debit	Credit	USD amount
Each invoice	2010 Trade payables (vendor)		USD amount when the invoice was posted

Paying account		1015 Cash at bank – JPY, etc.	FX amount × payment-date rate
Difference	7100 Foreign exchange gain/(loss) – realised		Difference of the lines above

Example: an invoice of JPY 1,000,000 posted at 152 JPY/USD (USD 6,578.95) and paid at 148 JPY/USD reduces the bank by USD 6,756.76. The difference of USD 177.81 is an exchange loss.

Preventing double payment

- An invoice in a payment in workflow cannot be selected in another payment.
- When a payment is posted the invoices are cleared, and a paid invoice cannot be reversed.
- Posting the reversal of a payment re-opens the invoices. It does not recall the bank transfer itself.

7. Payment files

The approver outputs the payment file at final approval. On the approval screen, the approver selects a format and presses [Approve & output file]. The payment is posted and the file is created and downloaded at the same time. **Payments are not combined**: one file is created per payment.

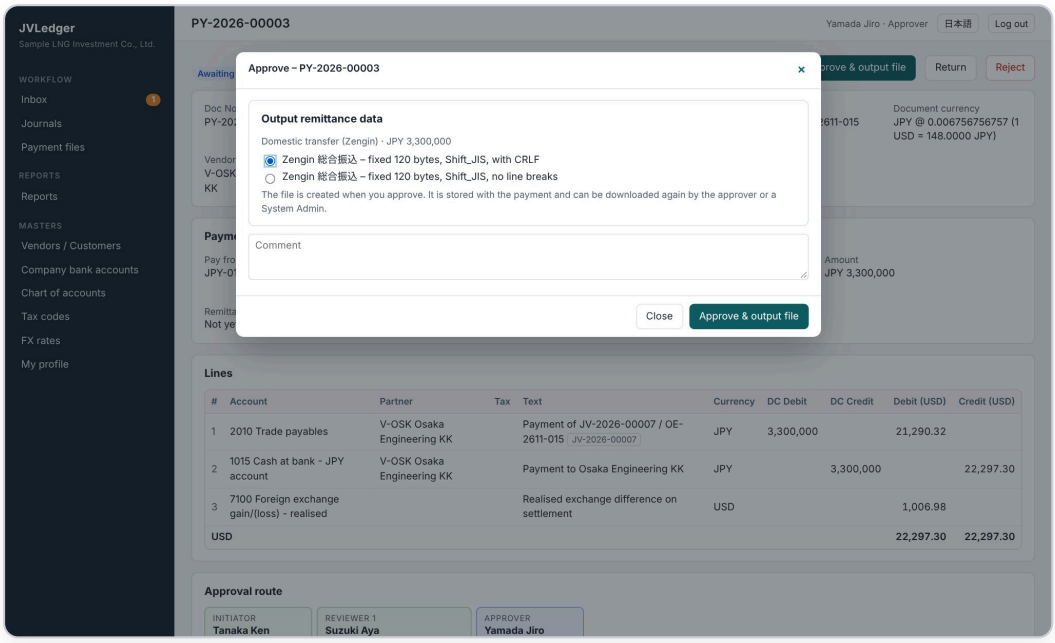


Figure 7-1 Final approval and format selection

Method	Applies to	Formats
Domestic transfer (Zengin)	JPY payments to a "Japan domestic (Zengin)" payee account	**Zengin bulk transfer (総合振込) with CRLF**: fixed 120 bytes, Shift_JIS, line break per record **Same, without line breaks**
International / foreign currency	Payments to an "International (SWIFT)" payee account. USD payments from the USD account also use this method, even within Japan.	**ISO 20022 pain.001.001.09** (XML, SWIFT CBPR+ version) **ISO 20022 pain.001.001.03** (XML) **Generic CSV** (UTF-8 with headers)

The Zengin file has header, data, trailer and end records: client code and name, transfer date, the company's bank and account, the payee's bank, branch, account type, account number, name and amount, and the record count and total. Kana are converted to half-width automatically, and each record is checked to be exactly 120 bytes.

The pain.001 file contains the debtor name, address, account and BIC; the creditor name, structured address, account (IBAN or account number) and bank BIC; the intermediary bank; charges (SHA / OUR / BEN); the purpose; and remittance information including invoice numbers.

Control of payment files

- Files are stored with the payment, with creation time, creator, size, SHA-256 hash and download count.
- Only the approver of the payment and System Admins can download a file again. A warning appears after a second download.
- File creation and downloads are recorded in the audit log.

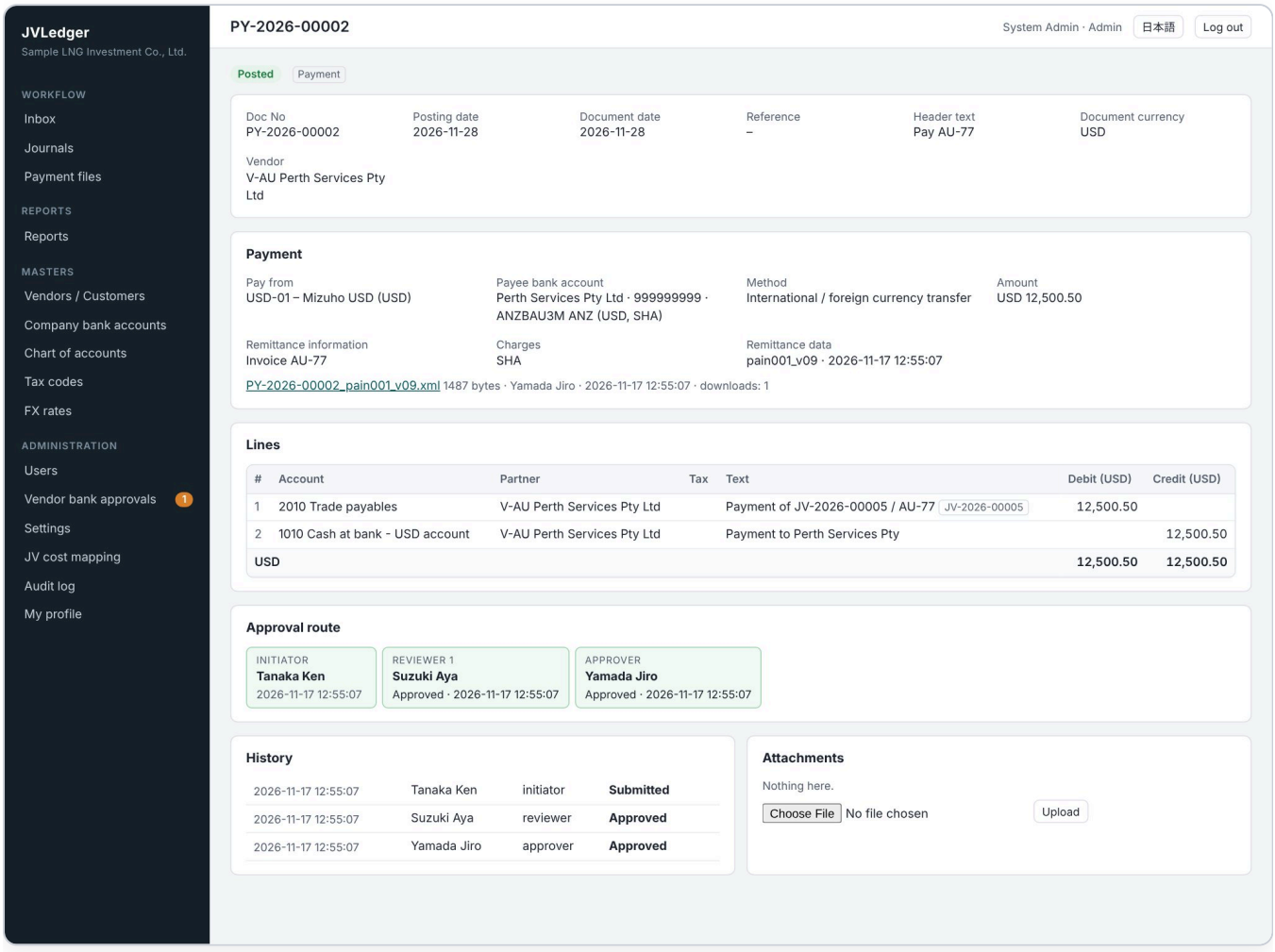


Figure 7-2 Posted international payment (pain.001.001.09 output)

8. Payee bank accounts and payment fraud prevention

Payee bank accounts are stored with the vendor. A vendor can have several accounts with one default per currency. In payment entry, the default account for the paying account currency is selected automatically.

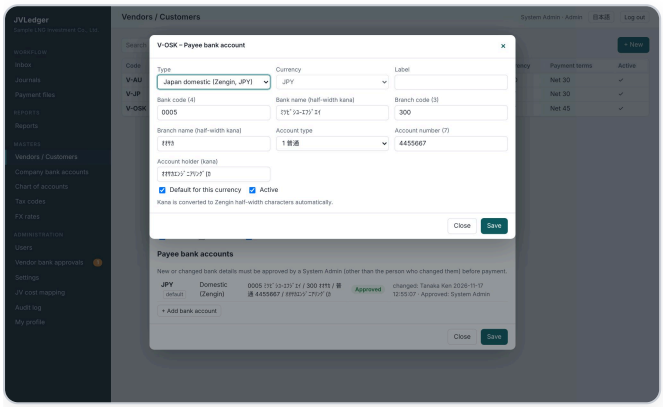


Figure 8-1 Japan domestic (Zengin) account

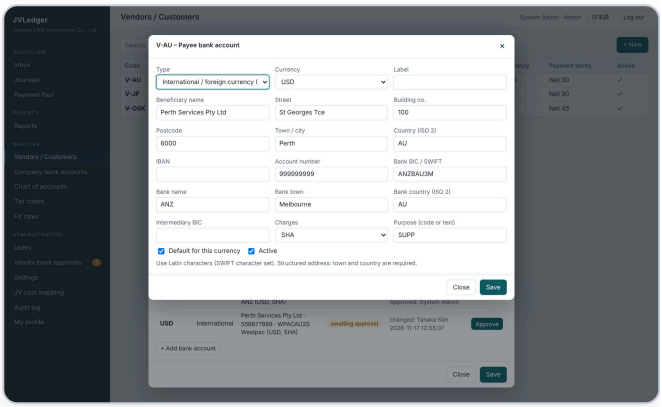


Figure 8-2 International (SWIFT) account

Type	Main fields
Japan domestic (Zengin, JPY)	Bank code (4 digits), bank name (half-width kana), branch code (3 digits), branch name (kana), account type, account number (7 digits), account holder (kana)
International (SWIFT)	Beneficiary name, address (street, building, postcode, town, country), IBAN or account number, bank BIC, name and location, intermediary BIC, charges, purpose

Approval control

- New or changed accounts become "awaiting approval" and cannot be used until **a System Admin other than the person who changed them** approves.
- If an account changes after a payment is submitted, that payment cannot be finally approved.
- The changer, change time, approver and approval time are recorded and logged.

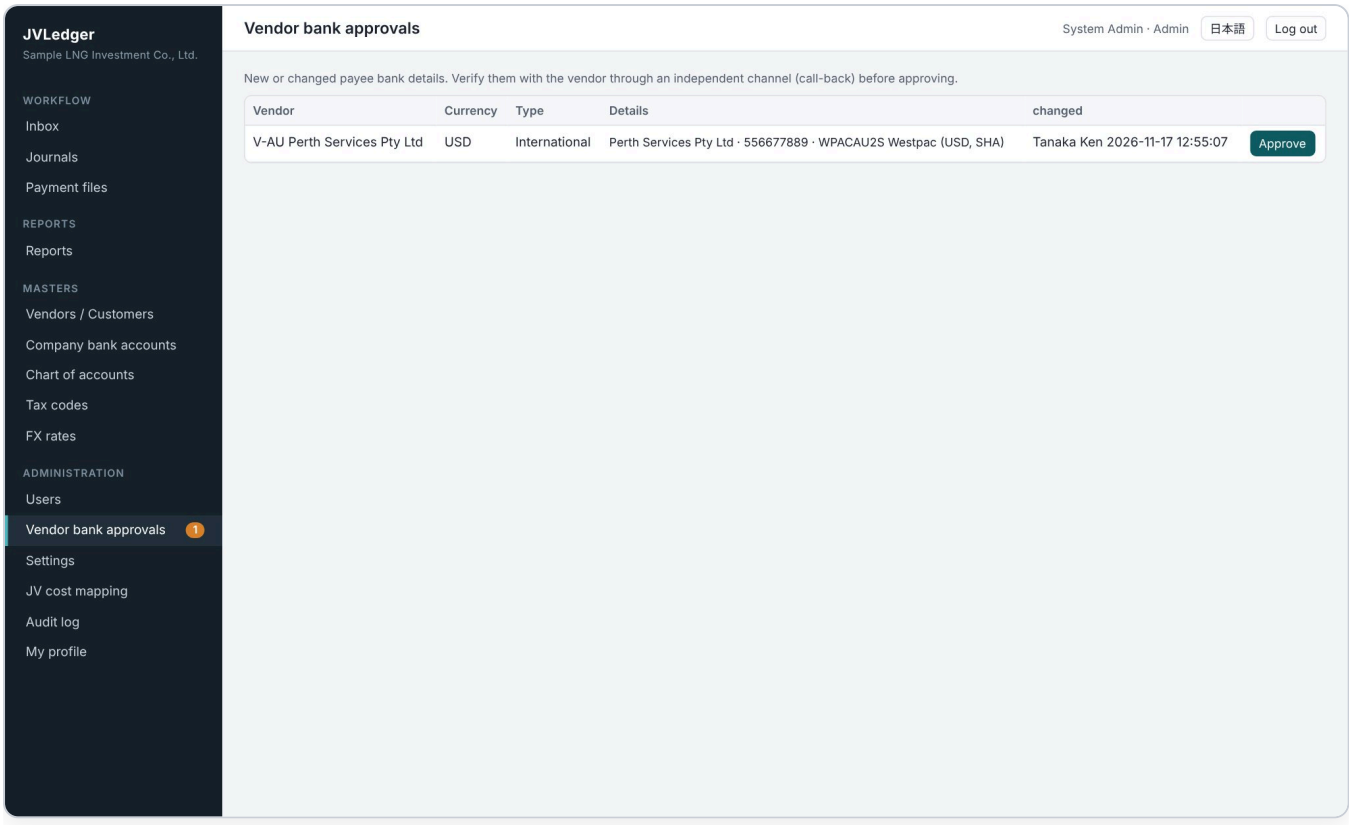


Figure 8-3 Payee bank approvals (System Admin)

When a vendor notifies a change of bank details by email or letter, always confirm it through an independent channel, such as a call to a known phone number, before approving (protection against business email compromise).

9. Month-end FX revaluation

Under IAS 21, foreign-currency monetary items are translated at the closing rate. In JVLedger this is done on the "FX revaluation" screen at month end:

1. Enter the revaluation date (month end); the balances and differences are previewed.
2. Press [Run revaluation & submit]. A revaluation journal (FX-) is created and routed through the normal workflow.
3. When it is approved and posted, **a reversal dated the 1st of the next month is posted automatically**.

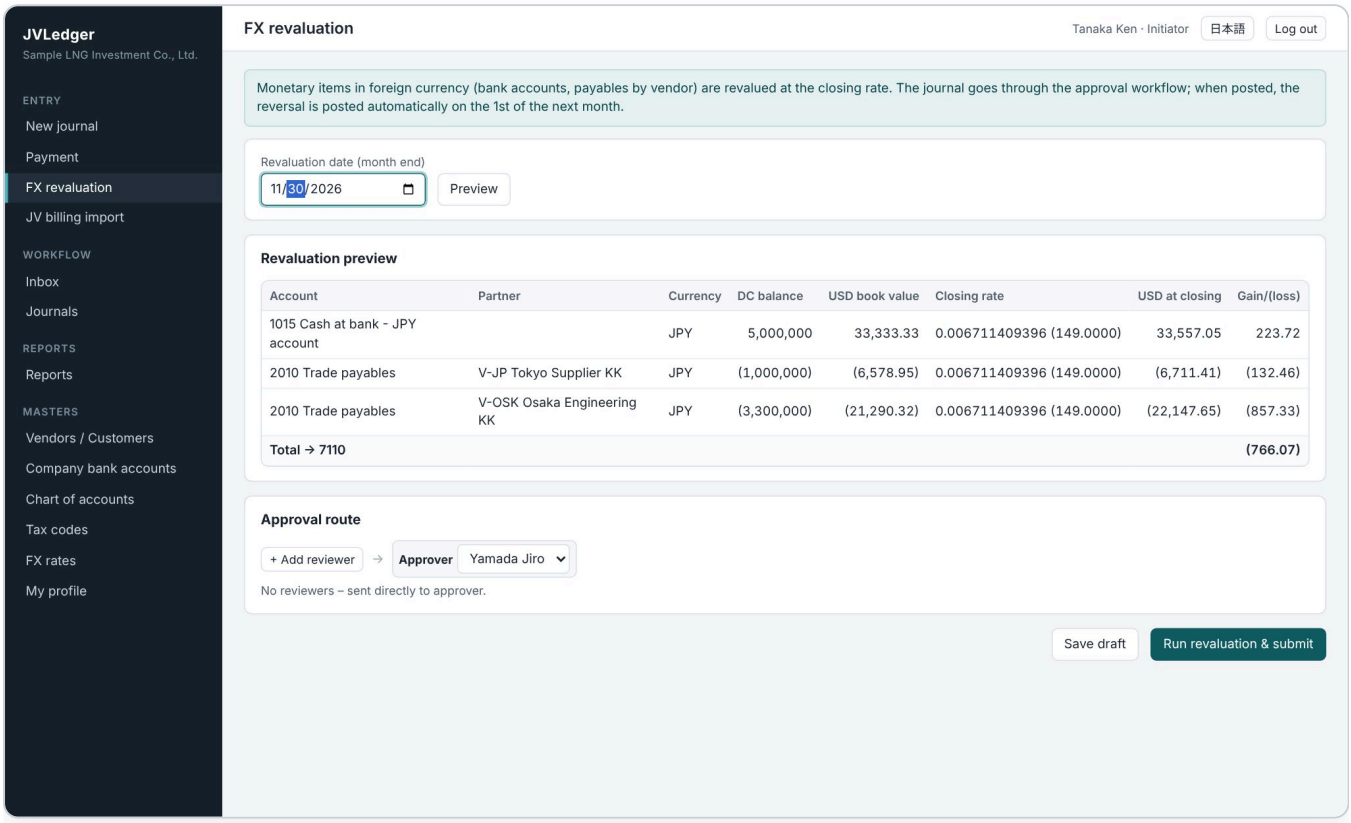


Figure 9-1 Revaluation preview

Item	Rule
Scope	Accounts flagged as monetary with balances in currencies other than USD. Bank accounts are revalued per account, payables per vendor and currency.
Rate	Closing rate (C) at the date; if missing, the latest daily rate (D) on or before the date.
Book value	USD at transaction rates, excluding earlier revaluation journals (revalue-and-reverse method).
Contra account	7110 Foreign exchange gain/(loss) – unrealised. A system account that cannot be posted manually.
Duplicate prevention	A revaluation cannot be created if one for the same date is in workflow or posted.

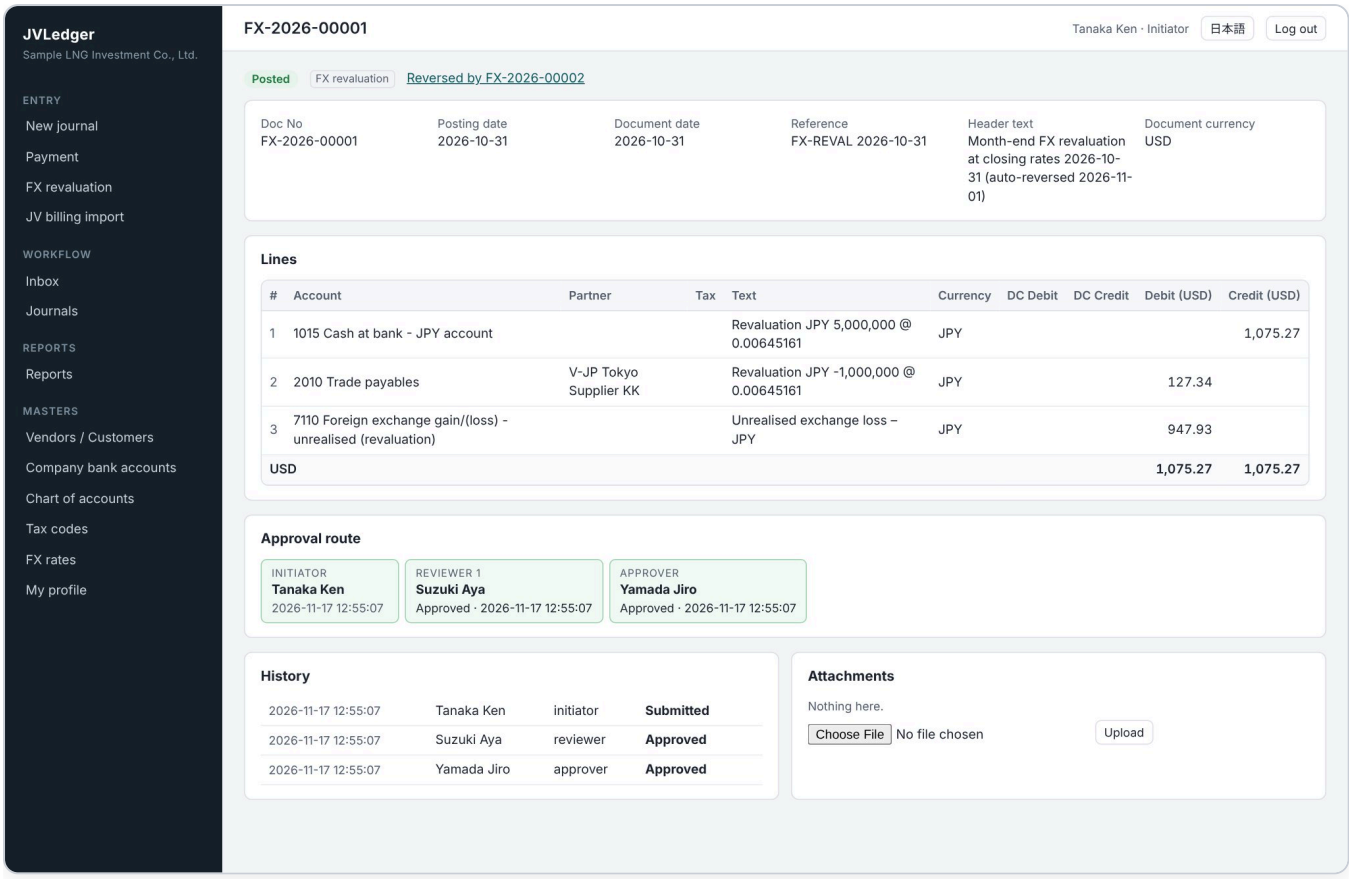


Figure 9-2 Posted revaluation journal with a link to the automatic reversal

Because of the reversal, payments in the following month clear payables at the invoice USD amount, so realised FX is the difference between the invoice and payment rates.

10. Approval workflow

Every journal, including payments and revaluations, is routed initiator → reviewers (0–5, in the order set) → approver, and is posted when the approver approves.

Role	Can do
1. System Admin	Users and roles, company bank accounts, approval of payee bank accounts, accounts, tax codes, FX rates, period lock, audit log, re-download of payment files
2. Initiator	Create journals, payments and revaluations; set the route; recall, edit, cancel; create reversals; register partners and payee accounts (subject to approval)
3. Reviewer	Review, approve (pass on), return or reject
4. Approver	Final approval (posting), return, reject. Outputs the payment file at final approval of payments

- An initiator cannot review or approve their own journal, and one person cannot be both reviewer and approver of the same journal.
- Return and reject need a comment. The approval history is kept for each journal.

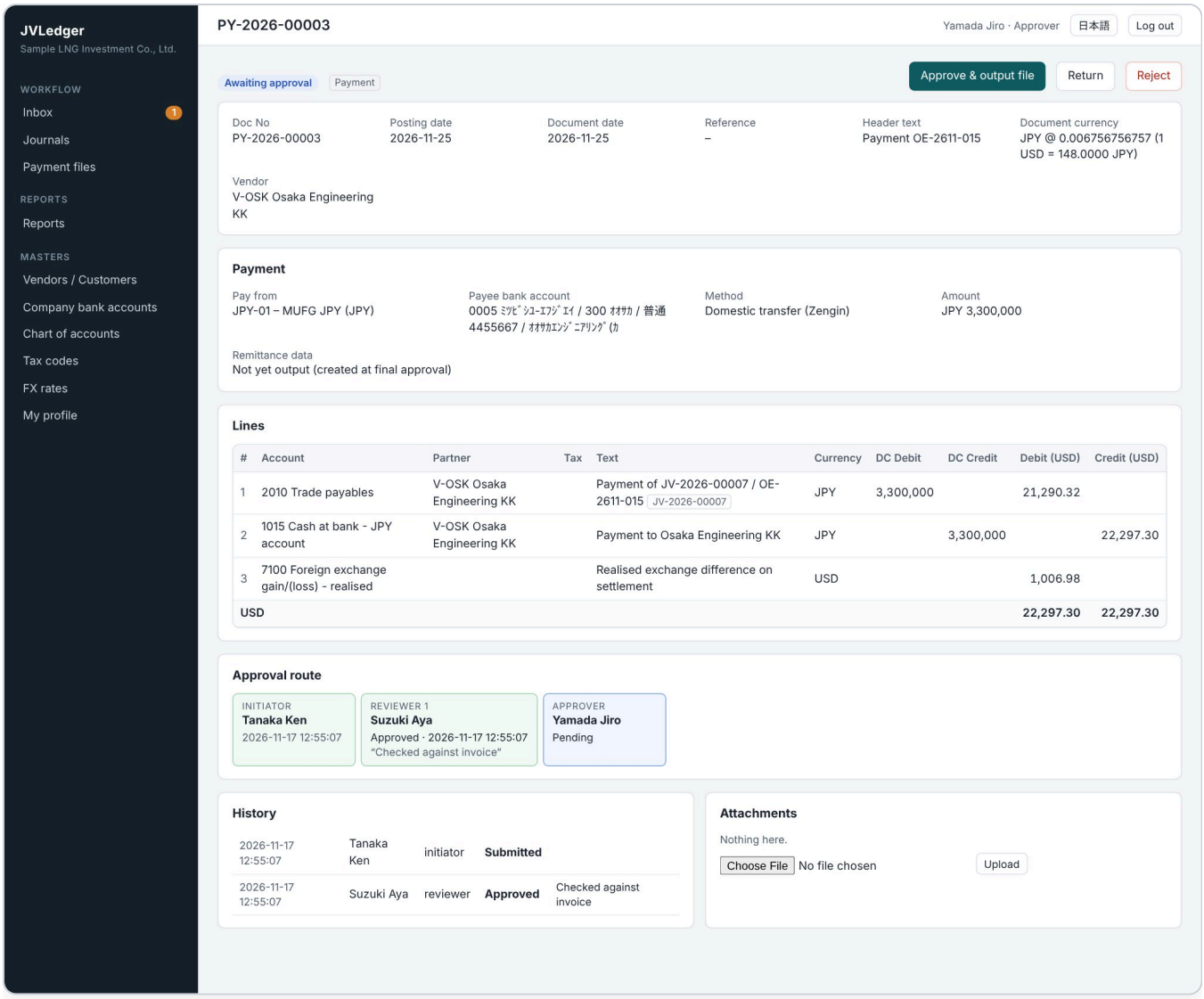


Figure 10-1 Payment awaiting final approval

11. Ledgers and financial statements

Report	Content
Journal	Document currency and rate per journal; FX (DC) and USD amounts per line. Can include entries in workflow.
General ledger	Lines, FX amounts, USD balance and closing FX balance per account. Filter by partner.
Trial balance	Opening, debit, credit and closing
Financial statements	Financial position (comparative), profit or loss and OCI, changes in equity, cash flows (indirect)
Indirect tax summary	Taxable amount and tax by tax code (USD)
Open payables / payment schedule	Unpaid invoices at a date with subtotals by vendor and currency, due date, days overdue, USD at historical and closing rates, and ageing
FX revaluation preview	FX monetary items and expected revaluation differences at a date
Payment register	Payments in a period with method, amount, status, file format, export time and user

In the cash flow statement, revaluation of foreign-currency cash is excluded from operating activities and shown as the **"Effect of exchange rate changes on cash"**. All reports can be shown on screen, exported to Excel and printed to PDF.

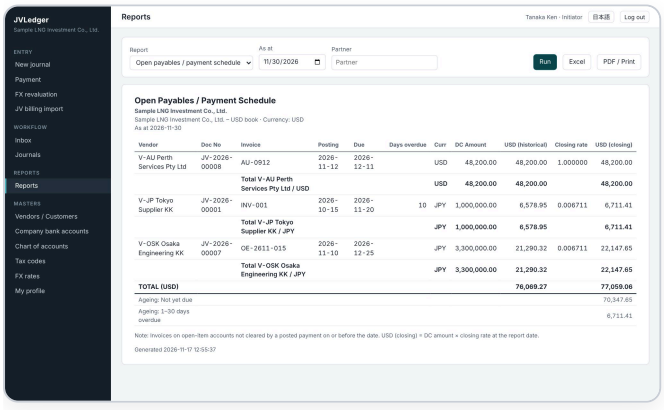


Figure 11-1 Open payables / payment schedule

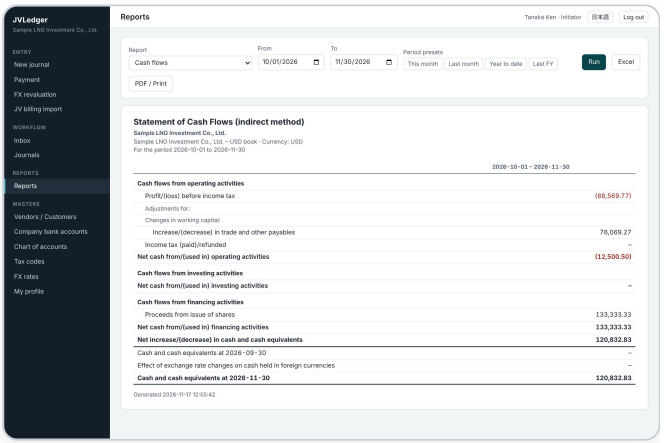


Figure 11-2 Statement of cash flows

12. Master data

Master	Content
Partners	Vendors and customers in one master, with several payee bank accounts (domestic / international)
Company bank accounts	USD and JPY accounts: GL account, Zengin client code and name, bank / branch codes and kana names, and debtor name, address, BIC and IBAN for ISO 20022
Chart of accounts	Statement group, monetary flag (revaluation scope), cash flow class, open-item flag (payables)
FX rates	Daily (D), monthly average (M), closing (C). Can be entered as units per 1 USD or pasted as CSV.
Tax codes	VAT / GST / consumption tax, rate and tax account
JV cost mapping	Billing statement cost codes to accounts

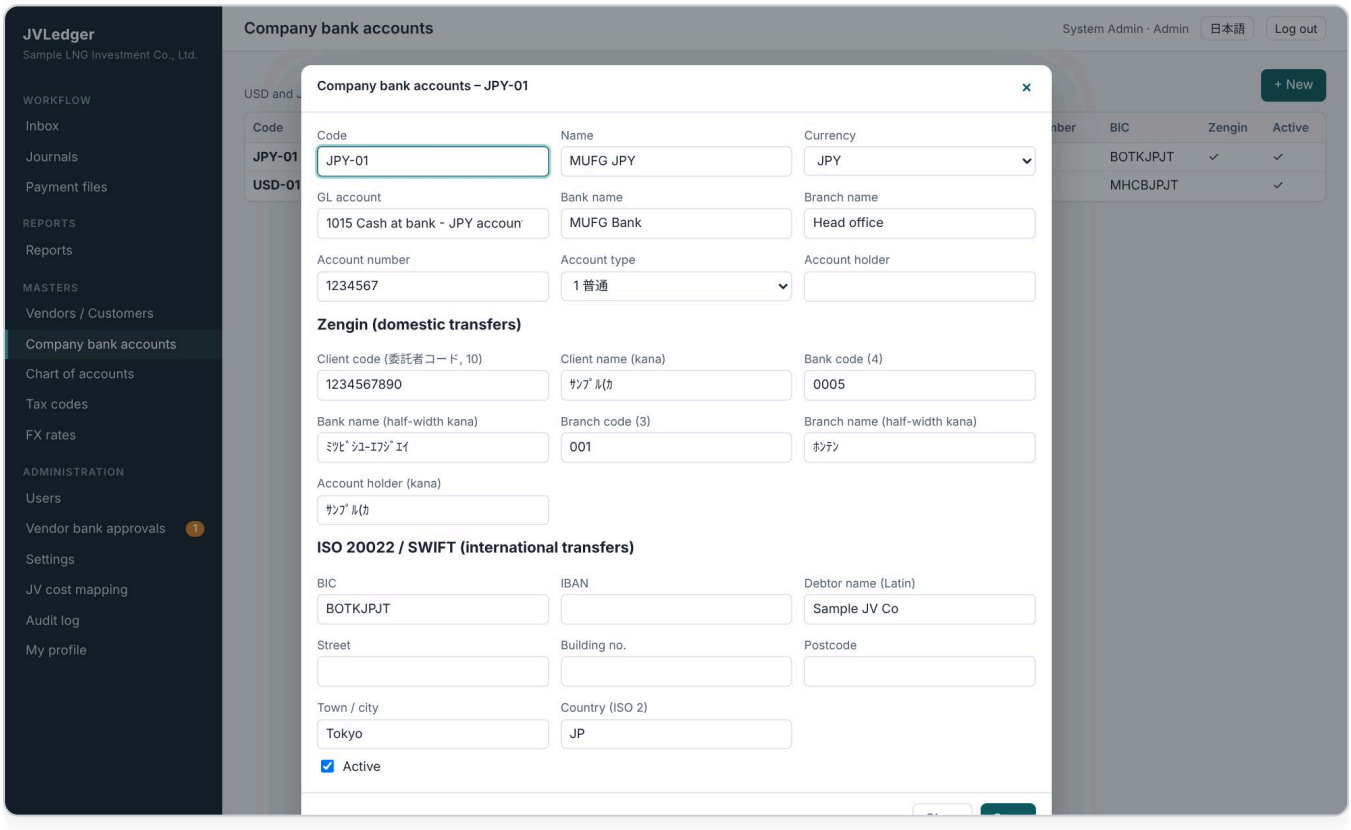


Figure 12-1 Company bank account (Zengin and ISO 20022 settings)

13. Security and internal control

- **Segregation of duties**: entry, review and approval by different people; payee bank changes approved by someone other than the changer.
- **Payment control**: payment files are created only at approval and can be retrieved only by the approver and System Admins. Hash values and download counts are recorded.
- **Period lock**: no posting, approval or submission in locked periods.
- **Audit log**: logins, master changes, journal actions, payment file creation and downloads.
- **Access protection**: HTTPS only, CSRF protection, lockout after failed logins, session timeout, and no web access to configuration and data folders.

14. Requirements and beta limitations

Item	Requirement
Server	PHP 8.1+, MySQL 5.7+ / MariaDB 10.3+ (runs on standard cPanel hosting)
Browser	Latest Google Chrome, Microsoft Edge, Safari or Firefox
Language	The UI switches between Japanese and English. Reports are in English.

Beta limitations

- Payment file formats follow common specifications. **Confirm with the import specifications of Mizuho Bank and MUFG Bank web banking, and test with small payments** before production use.
- No bank API connection, no automatic import of payment results and no bank statement reconciliation.
- No combining of payments into one file.
- Open-item management covers payables (2010) only. Receivables are not cleared.
- Bank charges are not in the payment file. Book them separately from the bank statement.